

BEST AVAILABLE COPY

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



15 FEB 2005



(43) International Publication Date
26 February 2004 (26.02.2004)

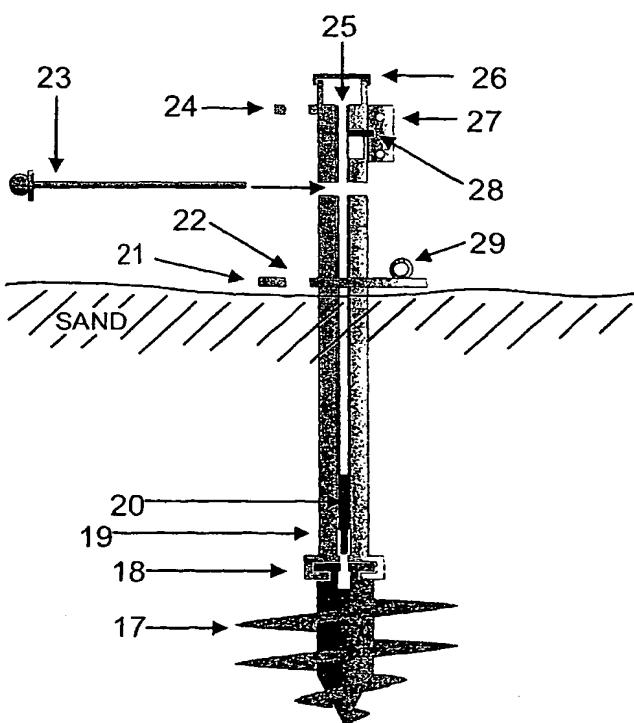
PCT

(10) International Publication Number
WO 2004/016886 A3

- (51) International Patent Classification⁷: E05B 37/00, (74) Agent: PLOUGMAN & VINGTOFT A/S; Sundkrogs-gade 9, P.O.Box 831, DK-2100 Copenhagen Ø (DK).
E05G 1/00, F16B 41/00, E04H 12/22
- (21) International Application Number: PCT/DK2003/000546
- (22) International Filing Date: 15 August 2003 (15.08.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
PA 2002 01213 15 August 2002 (15.08.2002) DK
PA 2002 01589 16 October 2002 (16.10.2002) DK
PA 2003 00057 20 January 2003 (20.01.2003) DK
- (71) Applicant (for all designated States except US): PROAC ApS [DK/DK]; Vildrosevej 3, DK-3500 Værløse (DK).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): Ørum, Henrik [DK/DK]; Vildrosevej 3, DK-Værløse (DK). ØRUM, Ann-Marie [DK/DK]; Vildrosevej 3, DK-3500 (DK).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: A SAFETY BOX FOR STORING PERSONAL VALUABLES, A SAFETY ANCHOR FOR SECURING THE SAFETY BOX AND SAFETY FASTENERS FOR SECURING A VARIETY OF OTHER OBJECTS



(57) Abstract: The invention provides a box, termed a safety-box, which can be physically attached to a hard-to-move-object and used for safe and convenient storage of personal valuables on beaches and other public or semi-public places. Furthermore, the invention provides a lock for a safety-box, a beach chair comprising a safety-box, a device, termed a safety-anchor, which in a first aspect can be easily installed into the ground but which is very difficult to remove for anyone but the authorised user and consequently can serve as a hard-to-move-object for securing the safety-box or other devices. In another aspect of the invention, the principle behind the safety-anchor is used to provide novel safety-fasteners that can be used to secure a diversity of objects against unauthorised removal. The safety-fasteners of the invention combine the attributes of ordinary fasteners with the ability to be converted into a safety-fastener by any of a number of very simple operations. Fasteners based on the invention can thus be mounted as ordinary fasteners using a variety of standard tools and, once mounting is satisfactory, turned into a safety-fastener that cannot be easily removed by unauthorised persons. Finally the invention provides a special safety-fastener, termed a lock-safety-fastener, which can be used to effectively secure a diversity of objects against unauthorised removal whilst at the same time allowing easy attachment/detachment of the valuable object by the authorised user.



Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

25 March 2004

INTERNATIONAL SEARCH REPORT

Internal Application No
PCT/03/00546

A. CLASSIFICATION OF SUBJECT MATTER				
IPC 7	E05B37/00	E05G1/00	F16B41/00	E04H12/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 E05B E05G F16B E04H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 36 05 859 A (SCHULTE SCHLAGBAUM AG) 27 August 1987 (1987-08-27) the whole document	1-5,7-9, 12,13
Y	---	7,10,11, 16,17
Y	US 5 216 909 A (ARMOOGAM MICHAEL A) 8 June 1993 (1993-06-08) the whole document	7
Y	---	10,11
A	DE 33 28 694 A (ILIEV ALBERT DIPLO ING) 28 February 1985 (1985-02-28) the whole document	1-13
	---	-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

14 January 2004

Date of mailing of the international search report

27.01.2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

CHRISTER WENDENIUS/JAA

INTERNATIONAL SEARCH REPORT

International Application No
PCT/DK 03/00546

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 142 388 A (PHILLIPS PETER J) 6 March 1979 (1979-03-06) the whole document ---	1-13
A	DE 600 841 C (JOSE MARIA SAMANIEGO) 1 August 1934 (1934-08-01) the whole document ---	1-13
X	US 4 971 390 A (MCGINLEY JOHN) 20 November 1990 (1990-11-20)	14,15, 19-21, 24,25, 27,28, 31,32
Y	the whole document	16-18, 21,22, 29,30,33
Y	US 5 401 904 A (GREENIER JR WILLIAM A) 28 March 1995 (1995-03-28) the whole document ---	18
Y	US 6 085 071 A (HAYAMA HIDEKI ET AL) 4 July 2000 (2000-07-04) the whole document ---	21,22
Y	GB 2 345 727 A (FIELDER DAVID) 19 July 2000 (2000-07-19) the whole document ---	29
Y	US 3 741 132 A (BLOWER B) 26 June 1973 (1973-06-26) the whole document ---	30,33
X	US 4 454 824 A (WOOD GARY J) 19 June 1984 (1984-06-19) the whole document ---	34-50,71
A	EP 0 988 809 A (OTT WOLFGANG ;STEINERT GUENTER (DE)) 29 March 2000 (2000-03-29) the whole document ---	34-50
A	US 5 199 361 A (ROBINSON MILTON W) 6 April 1993 (1993-04-06) the whole document ---	34-50
A	EP 0 292 028 A (JANSSEN AL W M) 23 November 1988 (1988-11-23) the whole document ---	34-50
X	FR 596 867 A (GAREAU EMILE) 3 November 1925 (1925-11-03) the whole document ---	51-58, 63,64,71
	-/-	

INTERNATIONAL SEARCH REPORT

International Application No
PCT/03/00546

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 256 015 A (ST CLAIR KENNETH A) 26 October 1993 (1993-10-26) the whole document ---	59-62
A	DE 196 33 512 A (KOPSCINA ANDREAS) 26 February 1998 (1998-02-26) the whole document ---	59-62
A	FR 2 434 952 A (NEIMAN SA) 28 March 1980 (1980-03-28) the whole document ---	51-64
A	DE 36 22 286 A (RUEHLE ERWIN) 6 November 1986 (1986-11-06) the whole document ---	51-64
X	US 4 159 015 A (FORSSBERG CHRISTER ET AL) 26 June 1979 (1979-06-26) the whole document ---	66,67
Y	---	68-70
Y	GB 323 444 A (HEINRICH BECK) 2 January 1930 (1930-01-02) the whole document ---	68-70
P,A	US 6 588 242 B1 (BEATY JAMES H) 8 July 2003 (2003-07-08) the whole document -----	66-70

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK 03/00546

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-13

Claims 1-13 directed to a lock for a safety box and a locking system.

2. Claims: 14-38

Claims 14-38 directed to a beach chair comprising a safety box, a safety box and a mount.

3. Claims: 34-71

Claims 34-71 directed to a safety anchor, a safety fastener, a lock safety fastener and a use of a safety anchor.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/ [REDACTED] 03/00546

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
DE 3605859	A	27-08-1987	DE	3605859 A1		27-08-1987
			CA	1289766 C		01-10-1991
			CH	673311 A5		28-02-1990
			DE	3763479 D1		09-08-1990
			EP	0234510 A2		02-09-1987
			JP	62253880 A		05-11-1987
			US	4953683 A		04-09-1990
US 5216909	A	08-06-1993	NONE			
GB 2201993	A	14-09-1988	NONE			
DE 3328694	A	28-02-1985	DE	3328694 A1		28-02-1985
US 4142388	A	06-03-1979	NONE			
DE 600841	C	01-08-1934	NONE			
US 4971390	A	20-11-1990	NONE			
US 5401904	A	28-03-1995	NONE			
US 6085071	A	04-07-2000	CN	1198612 A ,B		11-11-1998
			EP	0865095 A2		16-09-1998
			JP	3466079 B2		10-11-2003
			JP	11243304 A		07-09-1999
GB 2345727	A	19-07-2000	NONE			
US 3741132	A	26-06-1973	NONE			
US 4454824	A	19-06-1984	US	4664041 A		12-05-1987
EP 0988809	A	29-03-2000	DE	19844019 A1		08-06-2000
			EP	0988809 A2		29-03-2000
US 5199361	A	06-04-1993	NONE			
EP 0292028	A	23-11-1988	NL	8700866 A		01-11-1988
			BR	8807466 A		05-06-1990
			BR	8907466 A		15-05-1990
			EP	0292028 A1		23-11-1988
			WO	8808266 A1		03-11-1988
			EP	0358651 A1		21-03-1990
			JP	2503154 T		04-10-1990
FR 596867	A	03-11-1925	NONE			
US 5256015	A	26-10-1993	NONE			
DE 19633512	A	26-02-1998	DE	19633512 A1		26-02-1998
FR 2434952	A	28-03-1980	FR	2434952 A1		28-03-1980
DE 3622286	A	06-11-1986	DE	3622286 A1		06-11-1986
US 4159015	A	26-06-1979	FI	771819 A		09-12-1977
			NO	771994 A		09-12-1977

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/03/00546

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 323444	A 02-01-1930	NONE	
US 6588242	B1 08-07-2003	NONE	

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.